		OR	DER F	OR SUP	PLIES OR SERVI	CES					PAGE 0	F PAGES	
IMPORTANT:	Mark all	packages and papers with o	contract a	and/or orde	er numbers.						1	2	2
1 DATE OF ORD 09/28/201	CPSC-I-17-0024					6. SHIP TO					<del></del>		
3. ORDER NO.	ORDER NO. 4. REQUISITION/REFERENCE NO. REQ-4500-17-0010					CONSUMER PRODUCT SAFETY COMMISSION							
CONSUMER DIV OF PI 4330 EAS'	PROD ROCUR	ess correspondence to) UCT SAFETY COMM: EMENT SERVICES T HWY	SSIO	N		-	'ORA	RESS TE FOR HEALTH h Place	I SCIENCI	ES			
ROOM 523 BETHESDA MD 20814				c. CITY Rockv:	c. CITY d. STATE e. ZIP CODE Rockville MD 20850					E			
7, TO:						f SHIP VIA	4						
a NAME OF CO ENGINEER		OR ARMY CORPS OF						B, TYP	E OF ORDER				
b. COMPANY NA	AME					X a. PUR	RCHAS	iE			b. DELIVERY	,	
c. STREET ADD 3909 HAL		RRY ROAD				REFEREN	ICE YO	DUR:			ept for billing i		n the
d. CITY e STATE f. ZIP CODE				Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.					nis form and it the terms and	3 1			
VICKSBURG				MS	39180-6133			<u> </u>					
See Sche		PROPRIATION DATA						NING OFFICE PRODUCT SAFE'	TY COMMI	SSI	ION		
a SMALL			D SMAL		s (WOSB)	MEN-OWNED	•	e, HUBZone		1	12. F.O.B. PO	INT	
a INSPECTION Destinat		13. PLACE OF  b. ACCEPTANCE Destinat			14, GOVERNMENT B/L N	10		15. DELIVER TO F O.B. ON OR BEFORE (Date 09/30/2018			16. DISCOU		30
Descritat	.1011	Descinac	.011		17. SCHEDULE (Se	e reverse for	Rejec	tions)		_			
ITEM NO.		SUPPLIES		rices		QUANTITY	UNIT	UNIT PRICE	1	OUN1	τ	ACCI	NTITY EPTED
;	CONTR (COR) TEL: EMAIL	Number: 098165 ACTING OFFICER : TREYE THOMAS 301-987-2560 : TTHOMAS@CPSC.	REPRE	SENTAT	PIVE	(c)	(d)	(e)		<u>(f)</u>		(	9)
	18 SHII	PPING POINT			19. GROSS SHIPPING	WEIGHT		20. INVOICE NO					17(h) TOTAL (Cont.
		21, MAIL INVOICE TO									pages)		
SCE BUILDING	a NAME CPSC Accounts Payable Bran				nch		\$250	\$250,000.00					
SEE BILLING INSTRUCTIONS ON REVERSE (or P.O Box)  D. STREET ADDRESS (or P.O Box)  P.O. Box 25710				0				\$250	\$250,000.00			17(i) GRANI TOTAL	
99 1411750	'	klahoma City				d STA		6 ZIP CODE 73125 23 NAME (Typed)		_		-	
22 UNITED AMERIC	STATES (	gnature)	N		NW			Eddie Ahma		OFFIC	CER		

### **ORDER FOR SUPPLIES OR SERVICES**

PAGE NO

**SCHEDULE - CONTINUATION** 2 IMPORTANT. Mark all packages and papers with contract and/or order numbers. DATE OF ORDER CONTRACT NO: ORDER NO. CPSC-I-17-0024 09/28/2017 QUANTITY UNIT AMOUNT QUANTITY SUPPLIES/SERVICES HINIT ITEM NO. ORDERED PRICE ACCEPTED (d) **(f)** (a) (a) (b) (c) (e) THIS IS A INTERAGENCY AGREEMENT (IAA), CPSC-I-17-0024 BETWEEN THE U.S. CONSUMER PRODUCT SAFETY COMMISSION AND THE ENGINEERS AND DEVELOPMENT CENTER, US ARMY CORPS OF ENGINEERS, DEPARTMENT OF DEFENSE FOR THE PROGRAM ENTITLED: "TOOL FOR RANKING AND RISK PRIORITIZATION OF CONSUMER PRODUCTS THAT CONTAIN CHEMICALS AND EMERGING MATERIALS" SERVICES SHALL BE FOR THE PERFORMANCE PERIOD SEPTEMBER 28, 2017 THROUGH SEPTEMBER 27, 2018 IN ACCORDANCE WITH THE ATTACHED STATEMENT OF WORK (SOW) AND THE FORMS 7600A AND 7600B. Accounting Info: 0100A17DSE-2017-2325900000-EXHR004500-253I0 250,000.00 250,000.00 0001 1 EA THE ENGINEER RESEARCH AND DEVELOPMENT CENTER ENVIRONMENTAL LABORATORY (ERDC-EL) WILL PROVIDE TECHNICAL SUPPORT AND SERVICES TO THE CONSUMER PRODUCT SAFETY COMMISSION (CPSC) TO DEVLEOP A QUANITITATIVE AND TRANSPARENT APPROACH FOR MAKING COMPARATIVE JUDGEMENTS REGARDING MATERIAL RISK, DATA QUALITY AND RELEVANCE, METRIC INTEGRATION, AND RESIDUAL UNCERTAINTY FOR GENERAL CHEMICAL AND EMERGING MATERIAL (CEM) - ENABLE CONSUMER PRODUCTS. The total amount of award: \$250,000.00. The obligation for this award is shown in box 17(i).

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$250,000,00



IAA Number _	CPSC-I-17-0024 GT&C # Order	#	Amendr	ment #	7 Mod #			
	DEF	PAR	RTMENT	AN	D/OR AGENCY			
1.	Requesting Agency of Pro	duc	ts / Serv	ices	Servicing Agency Providing Products / Sevices			
Name	US Consumer Product Safety C Division of Procurement Service		mission,		USACE Engineer Research and Development Center			
Address	4330 East West Highway Bethesday, MD 20814		3909 Halls Ferry Road Vicksburg, MS 39180					
2. Servici	2. Servicing Agency Tracking Number (Optional) :							
3. Assiste	d Acquisition Agreement		Yes	<b>V</b>	No			
Nev Am	endment - Complete only the	GT	&C block		eing changed and explain the changes being made.  IAA cancellation and complete the effective End Date.			
5. Agreen	n <b>ent Period</b> Start Date _ MI		8/2017 E	nd [	Date09/27/2018 of IAA or effective cancellation date MM-DD-YYYY			
6. Recurring Agreement (Check One) A Recurring Agreement will continue, unless a notice to discontinue is received  Yes If Yes, this is an: Annual Renewal Other Renewal State the other renewal period:  No  7. Agreement Type (Check One) Single Order IAA Multiple Order IAA  8. Are Advance Payments Allowed for this IAA (Check One) Yes No								
	ecked, enter Requesting Agency							



IAA Number	CPSC-I-17-002 GT&C #	24	rder#	Amendme	ent # / Mod #	_			
9. Estimated A	areement A	mount(Th	 ne Servicir	ng Agency	completes al	information	n for the esti	mated ag	reement amount)
(Optional for a		····			•				· · · · · · · · · · · · · · · · · · ·
Direct Cost			\$250	0.000.00	Provide a ger	neral explan	ation of the (	Overhead	Fees and Charges
Overhead Fee	s & Charges		·						
Total Estimated	d Amount		\$250	00.000,0					
10. STATUTOI a. Requesting			(Check (	One)					
Franchise F	und R	evolving Fu	und 1	Working (	Capital Fund	Econo	omy Act (31 35 / FAR 17.		Other Authority
Fill in Statutory	· Authority Til	le and Cit:	ation for F	[ ranchise	Fund Revolv			·	or Other Authority
Section 27 (g) o	•				·	_	vorking oup	narraria,	or other rationly
b. Servicing A	laency's Διι	thority (C	heck On	ne)					
Franchise F	_	Revolving F		•	Capital Fund	Econo	my Act (31	C	Other Authority
Fill in Statuton	. Authority Ti	tle and City	ation for f	Eranchico	Fund Pavols	[	535 / FAR 17.  Morking Can	•	or Other Authority
riii iii Statutory	Authority III	ile and Cita	ation joi r	Tallcliise	runa, Nevon	ilig Fulla, v	Working Cap	ntai i unu	or other Admonty
11. Requestir	g Agency's	Scope (S	tate and	/or List /	\ttachments	that supp	ort Reque	sting Ag	jency's Scope.)
	Engineer Rent and service rials risk, data	search and s to develo quality and	l Develop p a quant d relevanc	ment Cer titative ar ce, metric	nter Environn id transparen	nental Labo It approach	oratory (ER of for making	DC-EL) t j compar	Commission o provide ative judgments neral chemical and
12. Roles and	Responsib	ilities for	the Req	uesting	Agency ar	nd the Se	rvicing Ag	gency (S	State and/or list
	viding input reg	arding the p	roduct's po	otential ha	zards, exposu	res and othe	er criteria des	signated a	s important by the nen requested and
Televant.									



AA Number	CPSC-I-17-0024 GT&C #	Order#	Amendment # / Mod #
13. Restric	tions (Optional) (State a	and/or attach	unique requirements and/or mission specific restrictions specific to this IAA).
			Credit Clause (The Servicing Agency will allocate the socio-economic t actions it has executed on behalf of the Requesting Agency).
15. Dispute Financial Ma	es: Disputes related to t anual (TFM) Volume I, P	this IAA shall Part 2, Chapte	ll be resolved in accordance with instructions provided in the Treasury ter 4700, Appendix 10; Intragovernmental Transaction (IGT) Guide.
	ation (Insert the number Agency.)60 days	er of days tha	nat this IAA may be terminated by written notice by either the Requesting
shall agree t	o the terms of the termina ons.	ation, includin	contract/order may also be canceled. If the IAA is terminated, the agencies ng costs attributable to each party and the disposition of awarded and
to terminate	e the IAA, the Requestir	ng Agency sl	e Requesting Agency's failure to give the requisite notice of its intent shall pay any actual costs incurred by the Servicing Agency as a result ts are directly attributable to the failure to give notice.
17. Assist	ed Acquisition Agree	ments - Red	equesting Agency's Organizations Authorized to Request Acquisition esting Agency's organizations authorized to request acquistion assistance for this IAA.
		and the same of the same of the same	
			ervicing Agency's Organizations Authorized to Request Acquisition cing Agency's organizations authorized to request acquistion assistance for this IAA.)
19. Reque	sting Agency Claus	e(s) (Optiona	nal) (State and/or attach any additional Requesting Agency clauses.)
20 Servici	ng Agency Clause(s) ((	Ontional) (St:	tate and/or attach any additional Servicing Agency clauses.)
20.001710.	ilg Agenty Oldasoto, (	Spacial, (S.	ate and/or attach any additional out trong tigothey contact,



	CPSC-I-17-0024			
	GT&C#	Order#	Amendment # / Mod #	· · · · · · · · · · · · · · · · · · ·
			Servicing Agency Attachments (Optional) (State and/or attachments	ech .
any addition	al Requesting Agency	and/or Servic	ing Agency Attachments)	
	Review of IAA			
By signing t	his agreement, the pa		annually review the IAA if the agreement period exceeds one year	•
By signing t	his agreement, the pa	by amendme	nt to the GT&C and/or modification to any affected Order(s).	•
By signing t Appropriate	his agreement, the pa changes will be made	by amendme	nt to the GT&C and/or modification to any affected Order(s).  AGENCY OFFICIAL	
By signing t Appropriate The Agency Servicing A	his agreement, the pa changes will be made Official is the highest gency to sign this agre	level accepting	AGENCY OFFICIAL  g authority or official as designated by the Requesting Agency an Agency Official must ensure that the general terms and conditions	d
By signing t Appropriate  The Agency Servicing Agency are properly	his agreement, the pa changes will be made Official is the highest gency to sign this agre defined, including the	level accepting	nt to the GT&C and/or modification to any affected Order(s).  AGENCY OFFICIAL  g authority or official as designated by the Requesting Agency and	d
By signing t Appropriate  The Agency Servicing Agere properly agreement.	his agreement, the pa changes will be made Official is the highest gency to sign this agre defined, including the	level accepting ement. Each / e stated statute	AGENCY OFFICIAL  g authority or official as designated by the Requesting Agency and Agency Official must ensure that the general terms and conditions bry authorities, and, that the scope of work can be fulfilled as per t	d
By signing t Appropriate  The Agency Servicing Agere properly agreement. The Agreem	his agreement, the pa changes will be made Official is the highest gency to sign this agre defined, including the tent Period Start Date (	e by amendme level accepting gement. Each / e stated statute Block 5) must t	AGENCY OFFICIAL  g authority or official as designated by the Requesting Agency and Agency Official must ensure that the general terms and conditions buy authorities, and, that the scope of work can be fulfilled as per to be the same as or later than the signature dates.	d he
By signing the Appropriate  The Agency Servicing Agere properly agreement. The Agreem Actual work	his agreement, the pa changes will be made Official is the highest gency to sign this agree defined, including the tent Period Start Date ( for this IAA may NOT to	e by amendme level accepting gement. Each / e stated statute Block 5) must t	AGENCY OFFICIAL  g authority or official as designated by the Requesting Agency and Agency Official must ensure that the general terms and conditions bry authorities, and, that the scope of work can be fulfilled as per t	d he
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By signing to Appropriate  The Agency Servicing Agerement. The Agreement. The Agreement Actual work Instructions  23.  Name  Title	his agreement, the pa changes will be made of Official is the highest gency to sign this agree defined, including the sent Period Start Date (for this IAA may NOT to Blocks 37 and 38.  Requestion of the Requestion of the Reguestion of the Reguest	e by amendme level accepting gement. Each / e stated statute Block 5) must to gegin until an Co lesting Ager Ahmad acting Officer	AGENCY OFFICIAL g authority or official as designated by the Requesting Agency and Agency Official must ensure that the general terms and conditions bry authorities, and, that the scope of work can be fulfilled as per to the same as or later than the signature dates.  Order has been signed by the appropriate individuals, as stated in the signature dates.  Servicing Agency  Jack E. Davis, PhD  Acting Director, Environmental Laborates.	d i he
By signing to Appropriate  The Agency Servicing Agere properly agreement. The Agreem Actual work Instructions  23.  Name  Title  Telephon	his agreement, the pa changes will be made of Official is the highest gency to sign this agree defined, including the tent Period Start Date (for this IAA may NOT to Blocks 37 and 38.    Request	e by amendme level accepting gement. Each / e stated statute Block 5) must to gegin until an Co lesting Ager Ahmad acting Officer	AGENCY OFFICIAL g authority or official as designated by the Requesting Agency and Agency Official must ensure that the general terms and conditions by authorities, and, that the scope of work can be fulfilled as per to be the same as or later than the signature dates.  Order has been signed by the appropriate individuals, as stated in the signature dates.  Servicing Agency  Jack E. Davis, PhD  Acting Director, Environmental Laborate (601) 634-4862  DAVIS JACK E. 1230560168	d i he
By signing to Appropriate  The Agency Servicing Agerement. The Agreement. The Agreement Actual work Instructions  23.  Name  Title  Telephon  Fax Num	his agreement, the pachanges will be made  Official is the highest gency to sign this agree defined, including the ment Period Start Date (for this IAA may NOT to for Blocks 37 and 38.  Request Eddle Control  e Number(s) (301)  ber dress sahm	e by amendme level accepting gement. Each / e stated statute Block 5) must to gegin until an Co lesting Ager Ahmad acting Officer 504-7884	AGENCY OFFICIAL g authority or official as designated by the Requesting Agency and Agency Official must ensure that the general terms and conditions bry authorities, and, that the scope of work can be fulfilled as per to be the same as or later than the signature dates.  Order has been signed by the appropriate individuals, as stated in the appropriate individuals, as stated in the Acting Director, Environmental Laborate (601) 634-4862  DAVIS JACK.E.1230560168	d i he



AA Number <u>CPSC-I-17-0024</u> GT&C #	Order #	Amendment # / Mo		g Agency's Agreement g Number (Optional)			
PRIM	MARY ORGA	NIZATION/OF	FICE INFO	RMATION			
24.	Reques	ting Agency		Servicing Agency			
Primary Organization / Office	US Consi	umer Product Safe	ety	USACE Engineer Resea	arch and		
Name Commission Development Cent							
Responsible Organization / Office	[DIVIDIOII C	of Procurement Se		3909 Halls Ferry Road			
Address Room 523, Bethesda, MD 20814 Vicksburg, MS 39180							
ORDER REQUIREMENTS INFORMATION							
25. Order Action (Check One) New  Modification (Mod) - List affected Order blocks being changed and explain the changes being made. For Example: for a performance period mod, state the new performance period for this Order in Block 27. Fill out the Funding Modification Summary by Line (Block 26) if the mod involves adding, deleting, or changing Funding for an Order Line.  Cancellation - Provide a brief explanation for Order cancellation and fill in the Performance Period End Date for the effective cancellation date.							
26. Funding Modification Summary by Line	Line #	Line #	Line #	Total of All Other Lines (attach funding details)	Total		
Original Line Funding					\$0.00		
Cumulative Funding Changes From Prior Mods [addition (+) or reduction (-)]					\$0.00		
Funding Change for This Mod			+		\$0.00		
TOTAL Modified Obligation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Total Advance Amount (-)					\$0.00		
Net Modified Amount Due	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Net Modified Amount Due \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00  27. Performance Period Start Date 09/28/2017 End Date 09/27/2018 For a performance period mod, insert the start and end dates that reflect the new performance period.							



28. Order Line / Funding Information   Requesting Agency Funding Information   Requesting Agency Funding Information   Servicing Agency Funding Expiration Date   Servicing Agency Funding Expiration Date   Servicing Agency General Agency Funding Expiration Date   Servicing Agency General Agency General Agency General Agency Funding Information   Services, Including the Bona Fide Need for this Order.)   Services to the Consumer Product Safety Commission (CPSC) to develop a quantitation of making comparative judgments regarding material risk, data quality and relevance, met uncertainty for general chemical and emerging material (CEM)-enabled consumer product Variation   Servicing Fees   Servicing Fees   Quantity   Unit Price   Total   Servicing Fees   Servicing Fees   Contract Cost   Servicing Fees   Cost   Cost	Agreement Intional)						
Requesting Agency Funding Information   Servicing Agency Funding Information   1000-8736							
ALC 61-00-0001 000-8736  Component SP ATA AID BPOA EPOA A MAIN SUB SP ATA AID BPOA IN 10/1/2014)  and/or current TAS format 61170100 096  BETC DUNS: 069287522 COLL  Object Class Code (Optional) TIN:520978750  BPN DOD964424  BPN + 4 (Optional) Additional Accounting Classification / Information (Optional)  Requesting Agency Funding Expiration Date 09/28/2018  MM-DD-YYYY Requesting Agency Funding Expiration Date 09/28/2018  Description of Products and/or Service, including the Bona Fide Need for this Order.) The Engineer Research and Development Center Environmental Laboratory (ERDC-EL) wand services to the Consumer Product Safety Commission (CPSC) to develop a quantitatify for making comparative judgments regarding material risk, data quality and relevance, met uncertainty for general chemical and emerging material (CEM)-enabled consumer product. North American Industry Classification System (NCAIS) Number (Optional)  Breakdown of Reimbursable Line Costs and/or Breakdown of Assisted A Unit of Measure Contract Cost School Overhead Fees and Charges Advance for Line (-)  Total Line Amount Obligated \$250,000.00 Net Total Cost \$0.00							
Component SP ATA AID BPOA EPOA A MAIN SUB SP ATA AID BPOA (required by 10/1/2014)  and/or current TAS format 61170100 096  BETC DUNS: 069287522 COLL  Object Class Code (Optional) TIN:520978750  BPN DOD964424  BPN + 4 (Optional) Additional Accounting Classification / Information (Optional) ExhR00450025310 EN: 62-1642142  MM-DD-YYYY  Project Number & Title  Description of Products and/or Service, including the Bona Fide need for this Order.) The Engineer Research and Development Center Environmental Laboratory (ERDC-EL) wand services to the Consumer Product Safety Commission (CPSC) to develop a quantitatif for making comparative judgments regarding material risk, data quality and relevance, met uncertainty for general chemical and emerging material (CEM)-enabled consumer product North American Industry Classification System (NCAIS) Number (Optional)  Breakdown of Reimbursable Line Costs and/or Breakdown of Assisted A Unit of Measure Countries (S250,000.00 Net Total Obligated Cost S0.00  Overhead Fees and Charges Advance for Line (-)  Total Line Amount Obligated \$250,000.00 Net Total Cost \$0.00	naing inform	auon	Denies As				
TAS (required by 10/1/2014) and/or current TAS format 61170100 096 BETC DUNS: 069287522 COLL Object Class Code (Optional) TIN:520978750  BPN DOD964424  BPN + 4 (Optional) DUNS: 069287522 DUNS: 0988165889 EIN: 62-1642142 (Optional) EXHR00450025310 DUNS: 098165889 EIN: 62-1642142 (Optional) Exhr0050260000 DUNS: 098165889 EIN: 62-1642142 (Optional) Exhr00502600000 DUNS: 098165889 EIN: 62-1642142 (Optional) Exhr005026000000 DUNS: 098165889 EIN: 62-1642142 (Optional) Exhr0050260000000 DUNS: 098165889 EIN: 62-1642142 (Optional) Exhr005026000000000000000000000000000000000	DOA EDOA		Legani	SUB			
and/or current TAS format BETC DUNS: 069287522 COLL Object Class Code (Optional) BPN DOD964424 BPN + 4 (Optional) Additional Accounting Classification / Information (Optional) Requesting Agency Funding Expiration Date 0972872018 MM-DD-YYYY Project Number & Title  Description of Products and/or Service, including the Bona Fide Need for this description of products/services, including the Bona Fide need for this Order.) The Engineer Research and Development Center Environmental Laboratory (ERDC-EL) w and services to the Consumer Product Safety Commission (CPSC) to develop a quantitating for making comparative judgments regarding material risk, data quality and relevance, met uncertainty for general chemical and emerging material (CEM)-enabled consumer product.  North American Industry Classification System (NCAIS) Number (Optional) Breakdown of Reimbursable Line Costs and/or Breakdown of Assisted A Unit of Measure Quantity Unit Price Total Servicing Fees  1 \$250,000.00 \$250,000.00 Net Total Obligated Cost Overhead Fees and Charges Advance for Line (-)  Total Line Amount Obligated \$250,000.00 Net Total Cost \$0.00	POA EPOA	Α	MAIN	SUB			
and/or current TAS format BETC DUNS: 069287522 COLL Object Class Code (Optional) BPN BPN BPN BPN							
BETC  Object Class Code (Optional)  BPN  BPN   DOD964424  BPN + 4 (Optional)  Additional Accounting Classification / Information (Optional)  Requesting Agency Funding Expiration Date O972872018  MM-DD-YYYY  Project Number & Title  Description of Products and/or Service, including the Bona Fide Need for this Order.) The Engineer Research and Development Center Environmental Laboratory (ERDC-EL) wand services to the Consumer Product Safety Commission (CPSC) to develop a quantitatifor making comparative judgments regarding material risk, data quality and relevance, met uncertainty for general chemical and emerging material (CEM)-enabled consumer product.  North American Industry Classification System (NCAIS) Number (Optional)  Breakdown of Reimbursable Line Costs and/or Breakdown of Assisted A Unit of Measure				I SEST			
Object Class Code (Optional)  BPN  BPN							
BPN + 4 (Optional)  Additional Accounting Classification / Information (Optional)  Requesting Agency Funding Expiration Date 09/28/2018  MM-DD-YYYY  Project Number & Title  Description of Products and/or Service, including the Bona Fide Need for this description of products/services, including the Bona Fide need for this Order.)  The Engineer Research and Development Center Environmental Laboratory (ERDC-EL) wand services to the Consumer Product Safety Commission (CPSC) to develop a quantitating for making comparative judgments regarding material risk, data quality and relevance, met uncertainty for general chemical and emerging material (CEM)-enabled consumer product.  North American Industry Classification System (NCAIS) Number (Optional)  Breakdown of Reimbursable Line Costs and/or Breakdown of Assisted A Unit of Measure Contract Cost  Quantity Unit Price Total Servicing Fees  1 \$250,000.00 \$250,000.00 Net Total Cost \$0.00  Overhead Fees and Charges Advance for Line (-)  Total Line Amount Obligated \$250,000.00 Net Total Cost \$0.00							
BPN + 4 (Optional)  Additional Accounting Classification / Information (Optional)  Requesting Agency Funding Expiration Date O9/28/2018  MM-DD-YYYY  Project Number & Title  Description of Products and/or Service, including the Bona Fide Need for this description of products/services, including the Bona Fide need for this Order.)  The Engineer Research and Development Center Environmental Laboratory (ERDC-EL) wand services to the Consumer Product Safety Commission (CPSC) to develop a quantitatifor making comparative judgments regarding material risk, data quality and relevance, met uncertainty for general chemical and emerging material (CEM)-enabled consumer product.  North American Industry Classification System (NCAIS) Number (Optional)  Breakdown of Reimbursable Line Costs and/or Breakdown of Assisted A Unit of Measure  Quantity Unit Price Total Servicing Fees  1 \$250,000.00 \$250,000.00 Total Obligated Cost Overhead Fees and Charges Advance for Line (-)  Total Line Amount Obligated \$250,000.00 Net Total Cost \$0.00		Les IIVIS					
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INDEPENDENT OF STREET							
Advance Elife Alliodit (4)	icing Fees (	Expla	nation				
Net Line Amount Due \$250,000.00							
Type of Service Requirements  Severable Service  Non-Severable Service  Not App	nlicable						



IAA Number	CPSC-I-17-0024 GT&C #	Order#	Amendment # / Mod #	Servicing Agency's Agreement Tracking Number (Optional)			
29. Adva	nce Information (Com	plete Block 29 if th	e Advance Payment fo	or Products/Services was checked "Yes" on the GT&C)			
Total Ad	vance Amount for the	order	[All Order Line	e Advance amounts (Block 28) must sum to this total.]			
	Revenue Recognition Methodology (according to SFFAS 7)(Identify the Revenue Recognition Methodology that will be used to account for the Requesting Agency's expense and the Servicing Agency's revenue.)						
Sti	aight-Line — Provide	amount to be a	ccrued	and Number of Months			
Ac	Accrual Per Work Completed — Identify the accounting post period:						
	Monthly per work completed & invoiced						
	Other — Explain other regular period (bimonthly, quarterly, etc.) for posting accruals and how the accrual amounts will be communicated if other than billed.						
30 Total	Net Order Amount:	\$250,000.00					
[All Orde		for reimbursable	agreements and Ne	Total Costs for Assisted Acquisition Agreements			
31. Attac	chments (State or list a	ttachments)					
L Ke	Key Project and/or acquisition milestones (Optional except for Assisted Acquisition Agreements)						
✓ Oti	Other Attachments (Optional)						
Statemer	nt of Work (SOW) Attach	ment A					
		BILLING AN	D PAYMENT INF	ORMATION			
32. Payı	nent Method (Check C	ne) [intra-govei	rnmental Payment a	and Collection (IPAC) is the Preferred Method.]			
Re	questing Agency Initiate	d IPAC	Servicing Ag	ency Initiated IPAC			
	edit Card		Other — Exp	plain other payment method and reasoning:			
[An Inv	ng Frequency (Check oice must be submitted are reimbursed (i.e., via	d by the Servicin		epted by the Requesting Agency BEFORE			
✓ Mo	onthly Quarterly	Other Bi	lling Frequency (includ	e explanation):			
34. Pay	ment Terms (Check C	ne)					
	Days Other Pay	ment Terms (incl	ude explanation): NET	30			



Amendment # / Mod # Servicing Agency's Agreement Tracking Number (Optional)  35. Funding Clauses / Instructions (Optional) (State and/or list funding clauses/instructions)  Subject to the Availability of Funds  Section 27 (g) of the Consumer Product Safety Act, 15 (U.S.C. 2076(g)  36. Delivery / Shipping Information for Products (Optional)  Agency Name USACE ERDC-Environmental Lab  Point of Contact (POC) Name & Title   Igor Linkov	
Subject to the Availability of Funds Section 27 (g) of the Consumer Product Safety Act, 15 (U.S.C. 2076(g)  36. Delivery / Shipping Information for Products (Optional) Agency Name  USACE ERDC-Environmental Lab	
Section 27 (g) of the Consumer Product Safety Act, 15 (U.S.C. 2076(g)  36. Delivery / Shipping Information for Products (Optional)  Agency Name  USACE ERDC-Environmental Lab	
36. Delivery / Shipping Information for Products (Optional) Agency Name USACE ERDC-Environmental Lab	
Agency Name USACE ERDC-Environmental Lab	
Agency Name USACE ERDC-Environmental Lab	
Point of Contact (POC) Name & Title   Iggs   inkgy	
Total Contact (FCC) Notice a Title   1901 annot	
POC Email Address Igor.Linkov@usace.army.mil	
Delivery Address / Room Number 3909 Halls Ferry Road, Vicksburg, MS 39180	
POC Telephone Number 617-233-9869	
Special Shipping Information	
APPROVALS AND CONTACT INFORMATION	
37. Program Officials	
The Program Officials, as identified by the Requesting Agency and Servicing Agency, must ensure that the scop work is properly defined and can be fulfilled for this Order. The Program Official may or may not be the Contract	101 101
Officer depending on each agency's IAA business process.	.8
Requesting Agency Servicing Agency	
Name Traye Thomas, Ph.D. Jack E. Davis, PhD	
Title Lead Toxicologist Acting Director, Environmental Le	borator
Telephone Number (301) 978-2560 (601) 634-4862	
Fax Number	
Email Address Ithomas@cpsc.gov Jack.E.Davis@usace.army.mi	
CICALATI DE Distaly specific from Dorsal	area harring garates
Date Signed  Treye Thomas  Oktom/rigo Thomas out/CPSC out-Office of UAVISJACK.E. 1230360168 (UAVISJACK.E. 1230360168 (UAVIS) (UAVISJACK.E. 1230360168 (UAVIS) (UAVISJACK.E. 1230360168 (UAVIS) (UAVISJACK.E. 1230360168 (UAVISJACK.E. 1230360168 (UAVISJACK.E. 1230360168 (UAVISJACK.E. 1230360168 (UAVI	
38. Funding Officials — The Funds Approving Officials, as Identified by the Requesting Agency and Servicing Ag	ency.
certify that the funds are accurately cited and can be properly accounted for per the purposes set forth in the Order.	The
Requesting Agency Funding Official alons to obligate funds. The Servicing Agency Funding Official signs to start the	work,
and to bill, collect, and properly account for funds from the Requesting Agency, in accordance with the agreement.	
Requesting Agency Servicing Agency	
Name James Baker Maria Ehmann	
Title Budget Officer Budget Officer, USACE ERDC	
Telephane Number (301) 504-7575 (217) 373-8745	
Fax Number	
	.ml]
Email Address baker@cpsc.gov maria.a.ehmann@usace.army	
Email Address baker@cpsc.gov maria.a.ehmann@usace.army SIGNATURE CHMANNARIA.AHR.1230436261 EMANN.AARA.AHR.1230436261 EMANN.AARA.AHR.1230436261 EMANN.AARA.AHR.1230436261 EMANN.AARA.AHR.1230436261 EMANN.AARA.AHR.1230436261	



AA Number	CPSC-I-17-0024	<b>D</b> -1 H	8	Servicing Agency's Agreement Tracking Number (Ontional)
	GT&C#	Order#	Amendment # / Mod #	Tracking Number (Optional)
			NTACT INFORMATI	ON
39. FINANC	E OFFICE Points		POCs) Agency (Payment Offic	ce)   Servicing Agency (Billing Office)
Name		Debbie Young	Agency (Payment One	Kevin Heath
Title		Payment Office		USACE Finance Center Director
Office Addre				
Onice Addre	:55	PO Box 25710	ts Payable Br, AMZ-160 ,Oklahoma City, OK 731	5722 Integrity Drive 25 Millington, TN 38054
Telephone N	Number	(405) 954-7467	7	(901) 874-8535
Fax Numbe	г			(901) 874-8572
Email Addre	ess	9-AMC-AMZ-C	PSC-Accounts-Payable	@FA Kevin.j.heath@usace.army.mil
Signature &	Date (Optional)			
			s) (as determined by eats of Contact (POCs).	ch Agency)
			uesting Agency	Servicing Agency
Name		Eddie Ahmad		Mary Kuczera
Title		Contracting O	fficer	Budget Analyst
Office Addr	ess	4330 East-We		USAERDC/CEERD-RM-B Champaign, IL 61822
Telephone	Number	(301) 504-788		(217) 373-6738
Fax Number			· · · · · · · · · · · · · · · · · · ·	
Email Addr	· · · · · · · · · · · · · · · · · · ·	aahmad@cps	c.gov	Mary.R.Kuczera@usace.army.mil
Signature 8	& Date (Optional)	Ed	12 9/26	6/17
Name				Jamie Middleton
Title				Budget Anaylst
Office Add	ress			3909 Hails Ferry Road Vicksburg, MS 39180
Telephone	Number			(601) 634-2618
Fax Numb				<u> </u>
Email Add				jamie.s.middleton@usace.army.mil
Signature	& Date (Optional)		***************************************	
Name		-	<del></del>	
Title				
Office Add	ress			
Telephone	Number			
Fax Numb	er			
Email Add	ress			
Signature	& Date (Optional)			

STATEMENT OF WORK
INTERAGENCY AGREEMENT
CPSC#: CPSC-I-17-0024
DOD IAA #:
BETWEEN
U.S. CONSUMER PRODUCT SAFETY COMMISSION
AND THE
ENGINEER RESEARCH AND DEVELOPMENT CENTER
US ARMY CORPS OF ENGINEERS
DEPARTMENT OF DEFENSE

Title: Tool for Ranking and Risk Prioritization of Consumer Products that Contain Chemicals and Emerging Materials

1.0 PURPOSE. The Engineer Research and Development Center Environmental Laboratory (ERDC-EL) will provide technical support and services to the Consumer Product Safety Commission (CPSC) to develop a quantitative and transparent approach for making comparative judgments regarding material risk, data quality and relevance, metric integration, and residual uncertainty for general chemical and emerging material (CEM)-enabled consumer products. ERDC-EL will develop a comparative risk assessment framework that integrates hazard, exposure, and effects data for EMs and establishes a risk prioritization score for individual EM-enabled consumer products. The final framework will be an expansion of previous work in which ERDC created a EmMatPrioritization Framework (CEMPF) that compared the estimated risk of consumer products containing emerging materials using CPSC input regarding the product's potential hazards, exposures, and other criteria designated as important by CPSC staff. ERDC-EL will design the framework for estimating and comparing the risk of EM-enabled consumer products with the specific goal of supporting CPSC regulatory activities.

2.0 BACKGROUND. The Consumer Product Safety Commission (CPSC) is responsible for protecting the public from unreasonable risk of injury or death associated with the use of more than 15,000 consumer products within its jurisdiction. An increasing number of these consumer products utilize emerging materials (e.g. advanced materials, specialty chemicals, etc.) for their advanced properties that confer improved performance over conventional counterparts. These same EMs, however, are often poorly understood from a human health and safety standpoint due to a dearth of available hazard information and uncertain relationships between exposure and adverse human health outcomes. Because the integration of EMs into consumer products is expected to occur more quickly than their health and safety impacts can be thoroughly evaluated, the CPSC will require the ability to rapidly screen and prioritize the diverse array of consumer products that incorporate EMs. In addition, the tool will also be used to prioritize products that contain traditional chemicals. To help prioritize the CPSC's research, testing, and monitoring efforts within the EM domain, ERDC-EL's Risk and Decision Science (RADS) Team will build a prioritization model that will enable the ranking of CEM-enabled consumer products according to hazard, exposure, and overall consumer risk priority based on published empirical data and

expert judgment. ERDC-EL will build on Nanomaterial Prioritization Framework (NPT) that ERDC built for CPSC under a previous interagency agreement (cite agreement).

3.0 WORK PLAN. The proposed study will consist of three separate tasks performed by ERDC-EL. CPSC will provide support and oversight of each task as described below. ERDC-EL will consult staff from the Environmental Protection Agency (EPA) who developed models to estimate exposure to personal care consumer products.

Task 1: Use Multi-Criteria Decision Analysis (MCDA) to create a proof-of-concept comparative risk assessment framework for EM-enabled consumer products. ERDC-EL will develop an MCDA-based comparative risk assessment framework specific to CPSC regulations, mission objectives, and existing CEM health and safety data. The framework will directly expand on ERDC's previously-developed NPF tool by incorporating hazard and exposure information specific to CEMs and their host products. The CEM framework will utilize multi-criteria decision analysis (MCDA), which is a series of analytic methods that allow for the consideration of multiple, complex factors in a decision-making process. Like the NPF, the ERDC-EL will integrate the CEM framework into a pilot-version software tool and will demonstrate its utility and efficacy through hypothetical case studies.

Task 1.1: Criteria Identification and Model Structuring. Initial efforts in constructing the MCDA model will involve properly framing the problem in terms of CPSC goals and objectives. Included in this task is the identification and structuring of criteria and sub-criteria within a hierarchical decision structure. Initial example criteria and sub-criteria are listed in Table 1. With the input of CPSC, ERDC-EL will identify and organize EM properties in a tiered risk framework based on their contribution to hazard, exposure, and adverse effect. Additionally, the ERDC-EL will research existing tools and algorithms designed specifically for CEM risk assessment and control banding and will leverage their methods as required (e.g. leverage EM risk findings from US National Institute for Occupational Safety and Health (ERDC-EL), US Environmental Protection Agency (EPA), US National Institute of Standards and Technology (NIST), Organization for Economic Cooperation and Development (OECD), International Organization for Standardization (ISO), and the United Nations (UN)).

Table 1: Example Criteria and Sub-Criteria for MCDA Model

Criteria	Sub-Criteria
Hazard	Lethality
······	Carcinogenicity
	Reproductive Effects
	Organ-specific Toxicity
	Reactivity
	Flammability
Exposure	Use Environment
	Frequency/Duration of Use
	Type of Use
	Exposure Route
<u></u>	Environmental Persistence
	Environmental Fate and Transport
	ADME
Stakeholder Criteria	Vulnerable Populations (e.g. children)

Public Perception
Country of Origin/Supply Chain

Task 1.2: Criteria Weighting. Each criterion and sub-criterion will be weighted based on its relative importance to consumer risk and product regulatory needs. ERDC consult with and receive approval for the weights (or ranges of weights) placed on each criterion and sub-criterion. This may be conducted through a small in-person meeting or through surveys. ERDC-EL will incorporate the responses from CPSC personnel regarding criteria weighting into the MCDA model.

Task 1.3: Synthesis of Data for Case Study. Leveraging the existing CPSC database of consumer products, ERDC-EL will perform a case study that prioritizes EM-enabled products based on the estimated consumer risk. The case study must demonstrate that the pilot-version software tool can effectively rank EM-enabled consumer products based on risk and can be adjusted for use by stakeholders with different priorities.

Task 2: Weight of Evidence (WoE) models to integrate uncertain risk and life cycle data into the framework. As risk-relevant scientific data is often conflicting, sparse, or incomplete for many EMs, the CPSC needs a transparent and consistent approach for integrating individual lines of evidence (LoEs; e.g. research papers or life-cycle risk models) into an overall weight-of-evidence designation for each sub-criterion in the MCDA tiered framework. In Task 2, ERDC-EL will devise a scoring scheme to evaluate individual LoEs based on study quality, technical merit, and applicability of results. Then, ERDC-EL will develop a method for systematically combining scored LoEs so that LoEs can be synthesized into an overall WoE evaluation that substantiates the relevant sub-criterion being assessed. By scoring LoEs quantitatively and individually rather than qualitatively and as a collective, CPSC personnel can easily and transparently add newly published scientific information and recalculate an existing WoE score.

Task 3: Cumulative Risk Assessment for Consumer Products. ERDC-EL will explore models for cumulative risk assessment for specific emerging materials under CPSC jurisdiction. ERDC-EL will develop the integration algorithms in collaboration with CPSC. One approach will include integration of risk through life cycle of consumer product use through multiple applications. This task will develop a general methodology and illustrative application.

Task 4 Value of Information (VoI) analysis to prioritize risk-relevant research. Because the frameworks in Tasks 1 and 2 allow for propagation and simulation of uncertainty in a consistent and traceable way, the results of Task as 1 and 2 (?) facilitate the uncertainty analysis that can predict the impact of additional research on regulatory outcomes. In particular, by including probabilistic ranges of scores for each EM risk property in a Value of Information (VoI) analysis, ERDC-EL will assess how narrowing individual uncertainties or groups of uncertainties is expected to impact risk results and then rank the findings to prioritize future research investigations. For this task, ERDC-EL will run Monte Carlo simulations testing the effect of changed input uncertainties on output EM composite risk scores.

**Report.** ERDC-EL will produce a final technical report that details the methods used in Tasks 1-3 and summarizes the findings from the case study.

**4.0 SCHEDULE.** The execution time for this interagency agreement is 12 months. The period of performance will begin September 28, 2017 and end on September 27, 2018.

Task	FY18										FY19							
	0	N	D	J	F	M	A	M	J	J	A	S	0	N	D	J	F	M
Task 1 – MCDA Model																		
1.1 Criteria Identification/		156.00	IME	1454									-					
Model Structuring																		
1.2 Criteria Weighting	100000000000000000000000000000000000000						题											
1.3 Data Synthesis																<u></u>		<u> </u>
Task 2 – Weight of Evidence										iri								
Task 3 – Value of Information																		
Report																		10400

**5.0 DELIVERABLES.** At the conclusion of the project, ERDC-EL will deliver an integrated proof-of-concept comparative risk assessment model incorporated into user-friendly and modifiable spreadsheet modules, along with a final report outlining methods and results of a case study application.

In addition, ERDC-EL will conduct user training for the CPSC staff to ensure full understanding of the model features and capabilities. ERDC-EL will also address any faults in the computer code or failures in the model identified by the CPSC staff at no additional cost.

**6.0 CPSC RESPONSIBILITIES.** CPSC will provide ERDC-EL necessary CPSC data and CPSC priorities, preferences, and expert judgment, when requested needed and relevant. In particular, ERDC-EL requires the existing CPSC database of EM-enabled consumer products. In addition, ERDC-EL will require expert judgment regarding criteria weights in the MCDA model.

#### 1. Confidentiality Requirements and Data Sharing

- a. Upon completion of this project, CPSC staff will determine whether the results are sufficient to allow ERDC-EL to present the results in a peer-reviewed journal article or conference proceeding. As set forth below, public release of information developed in this agreement must be reviewed by the CPSC staff and undergo any required agency clearance.
- b. ERDC-EL agrees that any report, manuscript or other document intended for publication or disclosure to the public and containing the results of work performed under this agreement (the "Report") shall not identify a manufacturer, private labeler, or particular consumer product. To ensure that the Report does not identify a manufacturer, private labeler, or particular consumer product, ERDC-EL shall submit the Report to CPSC for review in accordance with section 6(b) of the Consumer Product Safety Act (15 U.S.C. § 2055(b), CPSC regulations at 16 C.F.R. part 1101, and CPSC Directives (Order No. 1450.2). In connection with this review, CPSC will redact from the Report the names of manufacturers and private labelers and the identities of consumer products. If the report contains information that reflects on the safety of a class of consumer products, CPSC will follow its procedures for review of that information.

- c. To the extent permitted by law, all information reported to or otherwise obtained by CPSC or its agents under the Consumer Product Safety Act (CPSA) and provided to or shared with ERDC-EL, which contains or relates to a trade secret or other matter referred to in section 1905 of title 18, United States Code, or subject to section 552(b)(4) of title 5, United States Code, shall be held in confidence by ERDC-EL and any ERDC-EL contractor personnel.
- d. To the extent permitted by law, including the Freedom of Information Act, ERDC-EL and any ERDC-EL contractor shall agree not to release the identity of any manufacturer or private labeler of any product being tested or reviewed in conjunction with this agreement. These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive Order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive Orders and statutory provisions are incorporated into this agreement and are controlling.
- e. All documents and other materials developed pursuant to this agreement shall have appropriate statements to indicate that the work was performed pursuant to the agreement by CPSC; that the documents and other materials produced are the views of the staff or members (present or past) of the servicing agency; and that although the documents and other materials may have been developed in conjunction with CPSC staff, the documents and other materials do not necessarily represent the views of the Consumer Product Safety Commission.
- f. Any publications of or publicity pertaining to the work performed under this agreement shall include the following:
  - "This project was funded by CPSC. The content of this publication does not necessarily reflect the views of the Commission, nor does mention of trade names, commercial products, or organizations imply endorsement by the Commission."
- g. The servicing agency shall insure that the rights to all information, uses, processes, patents, and other developments resulting from this interagency agreement will be made available to the public without charge on a nonexclusive basis.

### 8.0 EXECUTION COST. The execution cost for this interagency agreement is \$250,000.

	Task 1	Task 2	Task 3	Report	TOTAL	
Labor	100	40	35	10	185	
Travel	10				10	
Purchases			5		5	
TOTAL	110	40	40	10	200	

#### 9.0 DISAGREEMENTS.

In the event that CPSC and ERDC have a disagreement arising under this agreement, the parties shall cooperatively seek to resolve the disagreement by themselves. If the disagreement cannot be resolved between them, the parties agree to seek the assistance of a third party in resolving the disagreement.

#### 10.0 CONTACTS:

- a. The contacts of each party to this agreement are:
  - i. CPSC COR

Treye Thomas, Ph.D.
U.S. Consumer Product Safety Commission
Office of Hazard Identification and Reduction
5 Research Place
Rockville, MD 20850
301-987-2560
tthomas@cpsc.gov

ii. ERDC Project Officer

Igor Linkov
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